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REPORT
OF THE
DEPARTMENT OF SANITATION
OF THE
ISTHMIAN CANAL COMMISSION
FOR THE
YEAR 1911

W. C. GORGAS

Colonel, Medical Corps, United States Army
Chief Sanitary Officer, Ancon, Canal Zone

WASHINGTON
1912

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LETTER OF TRANSMITTAL.

ISTHMIAN CANAL COMMISSION,
DEPARTMENT OF SANITATION,
Ancon, Canal Zone, January 27, 1912.

CHAIRMAN AND CHIEF ENGINEER,
ISTHMIAN CANAL COMMISSION,
Culebra, Canal Zone.

SIR: I have the honor to submit the following report of the department of sanitation for the calendar year 1911.

Figures as to health conditions during the past year, as compared with those for other years since 1904, are shown below:

	Number of employees.	Deaths.	Rate.
1904.....	6, 213	82	13. 26
1905.....	16, 512	427	25. 86
1906.....	26, 547	1, 105	41. 73
1907.....	39, 238	1, 131	28. 74
1908.....	43, 891	571	13. 01
1909.....	47, 167	502	10. 64
1910.....	50, 802	558	10. 98
1911.....	48, 876	539	11. 02

The death rate among our white employees from the United States from disease was 2.82 per thousand, while the total death rate was 5.14 as against 5.76 per thousand in 1910. If we include American women and children, it will raise the death rate of Americans from disease to 4.48. Including in the above figures the officers and men of the Tenth Infantry and Marines and their families, the death rate from disease is lowered to 2.36 per thousand. The death rate from disease in our Army for the calendar year 1910 was 2.44 per thousand.

Taking special diseases, the deaths among our employees have been:

	1905	1906	1907	1908	1909	1910	1911
Typhoid fever.....	12	42	98	19	13	13	10
Dysentery.....	14	69	48	16	8	21	13
Pneumonia.....	95	413	328	93	70	73	94
Malaria.....	86	233	154	73	52	50	47

The increase in the deaths from pneumonia over that of last year occurred almost exclusively among colored laborers brought to the zone from the West Indies during the year, as was the case in 1906 when an epidemic of the disease prevailed.

The improved conditions as regards deaths from malaria among our employees continue, and the same is true of the admission rate to our hospitals, as is shown by the following table:

	Per thousand.
1904.....	125
1905.....	514
1906.....	821
1907.....	424
1908.....	282
1909.....	215
1910.....	187
1911.....	184

Deaths among our employees from the other principal diseases were as follows: Abscess of liver, 8; nephritis, acute and chronic, 39, and from all forms of tuberculosis, 54; leaving 109 deaths among employees from all other diseases and 165 deaths from external violence.

Considering the death rate of the total population, including the cities of Panama and Colon and the Canal Zone, we find the rates for the different years to be as follows:

	Rate.
1905.....	49. 94
1906.....	48. 37
1907.....	33. 63
1908.....	24. 83
1909.....	18. 19
1910.....	21. 18
1911.....	21. 46

One case of bubonic plague of the septicemic variety, from Guayaquil died at Ancon Hospital, on October 17. The case was interesting in that it revealed no external lesions of the disease, and was diagnosed at autopsy from smears taken from the spleen and femoral glands.

With this exception no cases of yellow fever, plague, or smallpox occurred on the Isthmus during the year.

Very respectfully,

W. C. GORGAS,
Chief Sanitary Officer.

ANNUAL REPORT

OF THE

DEPARTMENT OF SANITATION, ISTHMIAN CANAL COMMISSION,

FOR THE YEAR 1911.

VITAL STATISTICS.

DEATHS OF EMPLOYEES OF THE ISTHMIAN CANAL COMMISSION AND PANAMA RAILROAD CO.

Color.	Average num- ber of em- ploy- ees.	Total number of deaths from—			Annual death rate per 1,000—		
		Dis- ease.	Vio- lence.	All causes.	Dis- ease.	Vio- lence.	All causes.
White.....	12,251	72	51	123	5.88	4.16	10.04
Colored.....	35,625	362	114	416	8.25	3.11	11.36
Total.....	48,876	374	165	539	7.65	3.38	11.02

DEATHS IN THE CITIES OF PANAMA AND COLON, AND THE CANAL ZONE.

Places.	Population.	Deaths.	Annual average per 1,000.
Panama.....	46,555	1,456	31.27
Colon.....	19,947	527	26.42
Canal Zone.....	90,434	1,385	15.32
Total.....	156,936	3,368	21.46

NOTE.—The figures relating to the number of employees are com-
piled from the pay rolls of the different months of the year.

The population and deaths as given for the cities of Panama,
Colon, and the Canal Zone include employees and civil population.
Total admissions of employees to hospitals and sick camps

including those sick in quarters..... 43,816

Average per 1,000 of admissions of employees to hospi-
tals and sick camps, including those sick in quarters.... 896

DEATHS BY AGE, COLOR AND SEX.

Age.	White.			Colored.			Yellow.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Under 1 year.....	82	58	140	486	375	861	3	1	4	571	434	1,005
1 to 4 years.....	25	17	42	144	120	264	.....	.....	.....	169	137	306
5 to 10 years.....	1	6	7	17	26	43	.....	.....	.....	18	32	50
11 to 20 years.....	8	10	18	98	56	154	1	.....	1	107	66	173
21 to 30 years.....	61	16	77	421	177	598	9	.....	9	491	193	684
31 to 40 years.....	79	15	94	257	124	381	14	.....	14	350	139	489
41 to 50 years.....	69	6	66	165	76	241	8	1	9	233	83	316
51 to 60 years.....	19	3	22	87	43	130	2	.....	2	198	46	154
61 to 70 years.....	9	4	13	45	21	66	1	.....	1	55	25	80
71 to 80 years.....	6	4	10	14	13	27	2	.....	2	22	17	39
81 to 90 years.....	2	4	6	2	5	7	.....	.....	.....	4	9	13
91 to 100 years.....	1	1	2	1	1	2	.....	.....	.....	2	2	4
101 to 110 years.....	1	.....	1	.....	1	1	.....	.....	.....	1	1	2
Unknown.....	7	2	9	35	7	42	2	.....	2	44	9	53
Total.....	361	146	507	1,772	1,045	2,817	42	2	44	2,175	1,193	3,368

DEATHS BY NATIONALITY.

	Employees.	Nonemploy- ees.	Total.
Antigua.....	15	14	29
Australia.....	.....	1	1
Austria.....	.....	1	1
Bahama Islands.....	1	.....	1
Barbados.....	140	265	405
Belgium.....	.....	1	1
Bolivia.....	.....	2	2
Canada.....	.....	3	3
Chile.....	1	4	5
China.....	.....	41	41
Colombia.....	16	128	144
Costa Rica.....	.....	11	11
Cuba.....	1	5	6
Curacao.....	.....	2	2
Demerara.....	7	3	10
Denmark.....	.....	1	1
Dominica.....	.....	2	2
Ecuador.....	1	6	7
England.....	.....	7	7
Fortune Islands.....	18	1	19
France.....	4	14	18
Germany.....	.....	4	4
Greece.....	7	3	10
Grenada.....	7	22	29

DEATHS BY NATIONALITY—Continued.

	Employees.	Nonemploy- ees.	Total.
Guadeloupe.....	14	17	31
Guiana, British.....	.....	1	1
Haiti.....	3	3	6
Honduras.....	.....	1	1
India.....	.....	1	1
Ireland.....	.....	1	1
Italy.....	7	12	19
Jamaica.....	111	588	699
Japan.....	.....	1	1
Martinique.....	28	56	84
Mexico.....	1	4	5
Montserrat.....	5	11	16
Nassau.....	1	.....	1
Nevis.....	.....	1	1
Nicaragua.....	2	8	10
Norway.....	2	.....	2
Panama.....	18	1,351	1,369
Peru.....	1	10	11
Porto Rico.....	.....	3	3
Portugal.....	4	1	5
Russia.....	.....	1	1
San Salvador.....	1	.....	1
St. Croix.....	.....	1	1
St. Kitts.....	6	4	10
St. Lucia.....	7	45	52
St. Thomas.....	.....	6	6
St. Vincent.....	6	3	9
Spain.....	60	63	123
Syria.....	.....	2	2
Switzerland.....	.....	2	2
Trinidad.....	9	23	32
Turks Island.....	1	.....	1
Turkey.....	.....	1	1
United States.....	32	45	77
Venezuela.....	.....	3	3
West Indies.....	1	2	3
Unknown.....	1	17	18
Total.....	539	2,829	3,368

CAUSES OF DEATH OF EMPLOYEES OF THE ISTHMIAN CANAL
COMMISSION AND PANAMA RAILROAD.

Causes of death.	White.	Colored.	Total.
<i>Disease.</i>			
Alcoholism, acute and chronic . .	1	-----	1
Aneurism.....	1	1	2
Angina pectoris.....	-----	1	1
Apoplexy.....	3	4	7
Appendicitis.....	1	1	2
Brain, softening of.....	1	1	2
Cancer and other malignant tumors of buccal cavity.....	1	-----	1
Cancer and other malignant tumors of stomach and liver... .	1	3	4
Cancer of organs not specified... .	1	3	4
Dysentery.....	2	-----	2
Dysentery:			
Amebic.....	1	1	2
Clinical.....	-----	9	9
Diarrhea and enteritis.....	-----	2	2
Embolism and thrombosis.....	-----	1	1
Empyema.....	1	-----	1
Epilepsy.....	-----	2	2
Endocarditis, acute.....	-----	1	1
Fever:			
Hemoglobinuric.....	13	3	16
Malaria.....	1	2	3
Malaria, cachexia.....	-----	1	1
Malaria, estivo autumnal... .	12	15	27
Typhoid.....	2	8	10
Gastritis, acute.....	-----	1	1
Heart, organic disease of.....	4	10	14
Hemorrhages, other.....	-----	1	1
Hernia, strangulated.....	-----	1	1
Infection of unknown origin.....	1	-----	1
Leuchemia, lymphatic.....	1	-----	1
Liver:			
Abscess of.....	2	6	8
Cirrhosis of.....	-----	2	2
Disease of.....	-----	1	1
Lungs:			
Abscess of.....	-----	1	1
Gangrene of.....	2	-----	2
Measles.....	-----	1	1
Meningitis:			
Pneumococcus.....	-----	4	4
Tuberculous.....	-----	2	2
Simple.....	-----	2	2
Nephritis:			
Acute.....	1	5	6
Chronic.....	4	29	33

CAUSES OF DEATH OF EMPLOYEES OF THE ISTHMIAN CANAL
COMMISSION AND PANAMA RAILROAD—Continued.

Causes of death.	White.	Colored.	Total.
<i>Disease—Continued.</i>			
Other diseases of the digestive system.....	1	.....	1
Other diseases of the kidneys and adnexa.....	1	2	3
Other forms of mental alienation.....	.....	2	2
Other nonvenereal diseases of the male genital organs.....	.....	1	1
Pericarditis.....	.....	2	2
Phlebitis.....	.....	1	1
Peritonitis, simple.....	.....	1	1
Pleurisy.....	.....	3	3
Pneumonia.....	.....	3	3
Pneumonia, lobar.....	9	82	91
Pupura hemorrhagica.....	.....	1	1
Pyemia.....	1	4	5
Pyemia and septicemia, pneumococcic.....	.....	2	2
Pyelonephrosis.....	.....	1	1
Septicemia.....	1	.....	1
Septicemia, purulent infection and.....	1	5	6
Spleen, disease of.....	.....	1	1
Stomach, disease of.....	.....	1	1
Stricture of urethra.....	.....	1	1
Syphilis.....	.....	1	1
Tetanus.....	.....	2	2
Tuberculosis:			
Abdominal.....	.....	2	2
Disseminated.....	.....	25	25
Genito-urinary organs.....	.....	1	1
Miliary.....	1	2	3
Pulmonary.....	.....	23	23
Ulcer, duodenal.....	.....	2	2
Undiagnosed.....	.....	6	6
<i>Violence.</i>			
Accidental traumatisms, various.....	6	16	22
Burns and scalds.....	.....	2	2
Drowning, accidental.....	5	20	25
Dynamite explosions.....	8	11	19
Electric shock.....	2	2	4
Homicides.....	3	3	6
Injuries by animals.....	.....	1	1
Lightning.....	.....	2	2
Poisonings, acute.....	.....	1	1

CAUSES OF DEATH OF EMPLOYEES OF THE ISTHMIAN CANAL
COMMISSION AND PANAMA RAILROAD—Continued.

Causes of death.	White.	Colored.	Total.
<i>Violence—Continued.</i>			
Railroad accidents.....	23	53	76
Suicides.....	2	1	3
Other external violence.....	2	2	4
Total.....	123	416	539

DEATHS OF WHITE EMPLOYEES FROM THE UNITED STATES, 1911.
JANUARY.

Name.	Division.	Time on Isthmus.	Age.	Cause of death.
Alleman, L. H.....	Central division...	2 years....	48	Traumatism by fall.
Frauk, Edwin E.....	Atlantic division..	9½ months.	27	Suicidal drowning.
Logan, A. C.....	Panama R. R. Co.	4 years....	50	Carcinoma of gall bladder and ducts.
White, Louis R.....	Atlantic division..	5 years....	35	Railroad traumatism.

FEBRUARY.

Allison, E. H.....	Transportation department.	4½ years...	50	Chronic nephritis.
Day, Henry C.....	Atlantic division..	39 months.	37	Aortic insufficiency.
La Rue, Alex.....	McClintic-Marshall Co.	17 days....	27	Railroad traumatism.

MARCH.

Cleary, J. R.....	Mechanical division.	5 months..	24	Railroad traumatism.
Hobrough, John M.....	Atlantic division..	3½ months.	23	Other external violence.
Marcotte, Henry J..... do	22 months.	44	Traumatism by machine.

APRIL.

Notte, John S.....	Panama R. R. Co.	6 years....	42	Pyemia.
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DEATHS OF WHITE EMPLOYEES FROM THE UNITED STATES, 1911—
Continued.

MAY.

Name.	Division.	Time on Isthmus.	Age.	Cause of death.
Harlow, James B.....	Atlantic division..	5 years....	36	Chronic nephritis.
O'Neill, Ambrose.....	Fire department...	10 months..	34	Accidental drowning.
Senofield, R. H.....	Pacific division...	7 months..	25	Acute nephritis.

JUNE.

Dennis, L. R.....	Atlantic division..	7 years....	41	Hemoglobinuric fever.
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JULY.

Brown, John F.....	Transportation....	2 years, 11 months.	55	Railroad traumatism.
Elsey, John T.....	Atlantic division..	5 years....	38	Hemoglobinuric fever.
Penny, H. H.....	Central division...	6 years....	65	Acute alcoholism.

AUGUST.

Blair, J. C.....	Pacific division....	1½ years...	45	Traumatism by fall.
Caldwell, G. A.....	Department of sanitation.	7½ years...	46	Abscess of liver.
McArthur, Semore.....	Mechanical division.	5 years....	49	Chronic nephritis.

SEPTEMBER.

Altou, Steven M.....	Civil administration.	14 months.	41	Septicemia.
Clayton, W. E.....	Atlantic division..	4 years....	45	Disease of the digestive system.
Coe, Henry P.....	do	9 months..	49	Hemoglobinuric fever.

OCTOBER.

West, C. B.....	Central division...	6 years....	44	Chronic nephritis.
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NOVEMBER.

Benion, H. G.....	Mechanical division.	1 year, 4 months.	32	Malarial fever, E. A.
McEvers, Edward.....	do	2 years....	43	Traumatism by machines.
Turrell, Joseph.....	Municipal engineering division.	5 years....	37	Suicide by cutting instrument.

DEATHS OF WHITE EMPLOYEES FROM THE UNITED STATES, 1911—
Continued.

DECEMBER.

Name.	Division.	Time on Isthmus.	Age.	Cause of death.
Des Londes, Oscar.....	Panama R. R. Co.	2 years....	34	Electric shock.
Treadwell, Edward F..	Pacific division...	7 months..	24	Traumatism in mines and quarries.
Wallendorff, Joseph....	Central division...	7 years....	40	Hepatic abscess (amœbic).

DEATHS OF WHITE WOMEN AND CHILDREN FROM THE UNITED STATES, 1911.

JANUARY.

Name.	Time on Isthmus.	Age.	Cause of death.
Milford (infant).....	1 day.....	1 day.....	Premature birth.

FEBRUARY.

Petre, Mrs. Margaret....	3½ years...	71 years...	Organic heart disease.
Strobridge, Lavinia....	do.....	45 years...	Mitral stenosis and insufficiency.

MARCH.

Calahan, Mrs. Margaret.	9 months..	81 years...	Chronic nephritis.
Clark, Mrs. E. B.....	do.....	22 years...	Hyperemesis gravidarum.
Gibson, Mrs. Lillie.....	4 years....	32 years...	Lobar pneumonia.
Hartson, Mildred.....	7 months..	3 years....	Broneho-pneumonia.
McGraw, Mrs. D.....	3½ years...	27 years...	Eclampsia.
Melbourne (infant)....	2½ hours...	2½ hours...	Premature birth.
Shackleton, Mrs. Wm....	6 months..	41 years...	Incomplete abortion.

MAY.

Holland, Daniel.....	1 month...	12 years...	Septicemia.
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JUNE.

Collins, Harry.....	6 days.....	6 days.....	Melena neonatorum.
Groves (infant).....	10 hours...	10 hours...	Premature birth.
Kent, Mary.....	3½ years...	15 years...	Pernicious malaria (cerebral).

DEATHS OF WHITE WOMEN AND CHILDREN FROM THE UNITED STATES, 1911—Continued.

JULY.

Name.	Time on Isthmus.	Age.	Cause of death.
Drake, Grace Pearl.....	2 years....	30 years...	Malaria fever, E. A.
Flemming, Harry Wm...	8 months..	8 months..	Simple meningitis.
Kelly, Hannah.....	13 months.	1 yr., 1 mo.	Acute dysentery.
Otis, Amelia.....	1 year.....	59 years...	Malaria fever, E. A.
Verner, Robert.....	18 months.	1½ years...	Laryngeal diphtheria.

AUGUST.

Denst, Frank.....	.....	2 years....	Burns by hot water.
Sommers, Frederick.....	2 months..	2 months..	Malnutrition.
Swain, John.....	20 days....	20 days....	Broncho-pneumonia.

SEPTEMBER.

Boyd, Elizabeth M.....	6 years....	32 years...	Carcinoma, disseminated.
Fenstermacher, Jack Edwin.	4 days.....	4 days.....	Intestinal obstruction.
Grier, Robert.....	2 years....	4½ years...	Accidental drowning.
Johnson, Phyllis Travella.	4 months..	4 months..	Meningitis.
Pickett (infant).....	2 days.....	2 days.....	Meningeal hemorrhage.
Thompson, Margaret....	5 years.....	Malaria fever, E. A.

OCTOBER.

Nigg, Mary.....	15 months.	14 years...	General peritonitis.
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NOVEMBER.

Cecil, Mrs. H. E.....	18 months.	44 years...	Carcinoma of gall bladder.
Gelme (infant).....	1 day.....	1 day.....	Premature birth.

DECEMBER.

Hollin, Ivy Violet.....	15 months.	15 months.	Disease of lymphatic system.
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DEATH RATE AMONG AMERICANS ON THE ISTHMUS.

	Number of deaths.	Annual average per 1,000.
Average number of white employees from the United States, 6,025:		
Disease.....	17	2.82
Violence.....	14	2.32
All causes.....	31	5.14
Average number of white women and children from the United States, 4,464:		
Disease.....	30	6.72
Violence.....	2	.45
All causes.....	32	7.17
Average number of white employees and their families from the United States, 10,489:		
Disease.....	47	4.48
Violence.....	16	1.53
All causes.....	63	6.01
Total number of Americans on the Canal Zone, 11,854: ¹		
Disease.....	7	2.36
Violence.....	5	1.69
All causes.....	12	4.05

¹ The figures representing the total number of Americans on the Canal Zone include employees and their families and the officers and men of the Tenth Infantry and Marines and their families. The deaths shown under this heading are for the last three months of the year only.

CAUSES AND PLACES OF DEATH OF EMPLOYEES AND CIVIL
POPULATION.

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pana- ma.	Colon.	Zone.	Total.
<i>I. General diseases.</i>						
Typhoid fever.....	9	6				15
Malaria.....	2	2	110	19	77	210
Malaria fever:						
Estivo-autumnal.....	32	21		2	14	69
Tertian.....				1		1
Cachexia.....	1		2		2	5
Hemoglobinuric fever.....	15	7	2		2	26
Measles.....		3	3	1	2	9
Whooping cough.....			2		1	3
Diphtheria and eroup.....	3	2	6			11
Influenza.....			4			4
Dysentery.....	1	3	13	4	7	28
Amebic.....	3	2	1		1	7
Bacillary.....		2				2
Clinical.....	16				2	18
Leprosy.....	1					1

CAUSES AND PLACES OF DEATH OF EMPLOYEES AND CIVIL
POPULATION—Continued.

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pana- ma.	Colon.	Zone.	Total.
I. General diseases—Contd.						
Erysipelas.....			4			4
Yaws.....			2			2
Purulent infection and septi- cemia.....	9			1		10
Pyemia.....	5	1	2			8
Septicemia.....	2	4	5		2	13
Pyemia and septicemia, pneu- mococcic.....	2	2				4
Tetanus.....	1	4	10	1	1	17
Pellagra.....	1	11	7	1		20
Beriberi.....			40		1	41
Tuberculosis of the lungs.....	37	22	173	21	32	285
Acute miliary tuberculosis.....	4	10		1	2	17
Tuberculosis meningitis.....	2	1				3
Abdominal tuberculosis.....	6	3	3			12
White swellings.....					1	1
Tuberculosis of the—						
Larynx.....				1		1
Skin.....			1			1
Lymph glands.....	1			1		2
Genito-urinary organs.....	2					2
Tuberculosis of other organs.....	1					1
Disseminated tuberculosis.....	56	5	1		1	63
Rickets.....			2			2
Syphilis.....			5		1	6
B. Secondary.....					1	1
C. Tertiary.....	1	1	2			4
D. Hereditary.....		1	4		4	9
Cancer and other malignant tumors:						
Of the buccal cavity.....	1		1	1		3
Of the stomach and liver.....	6	3	6		1	16
Of the female genital or- gans.....	1	2	5		1	9
Of the breast.....			1			1
Of the skin.....			1			1
Of other organs and of or- gans not specified.....	4	3	6		1	14
Tumor of brain.....	1					1
Other tumors (tumors of the female genital organs ex- cepted).....			1			1
Acute articular rheumatism.....			4			4
Arthritis deformans.....			1			1
Leukemia lymphatic.....	1					1
Anemia, chlorosis.....			1			1
Anemia, primary, pernicious.....	3					3
Alcoholism (acute or chronic).....	1	1	14	1	3	20
Alcoholism, acute.....	1		12		1	14
Alcoholic psychosis.....	3					3
II. Diseases of the nervous sys- tem and of the organs of special sense.						
Encephalitis.....		1	2			3
Simple meningitis.....	2	5	10	4	4	25
Pneumococcus meningitis.....	5	5				10
Acute anterior poliomyelitis.....					1	1

CAUSES AND PLACES OF DEATH OF EMPLOYEES AND CIVIL
POPULATION—Continued.

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pana- ma.	Colon.	Zone.	Total.
<i>II. Diseases of the nervous system and of the organs of special sense—Continued.</i>						
Other diseases of the spinal cord		1	1			2
Cerebral hemorrhage, apoplexy	8	4	11	3	11	37
Softening of the brain	3	1				4
Paralysis without specified cause			6	3	1	10
Other forms of mental alienation	4					4
Epilepsy	1		3		3	7
Convulsions (nonpuerperal)			3		1	4
Convulsions of infants			4	9	8	21
Neurasthenia			1			1
Other diseases of the nervous system				1	1	2
<i>III. Diseases of the circulatory system.</i>						
Pericarditis	3		2		1	6
Acute endocarditis		3	29			32
Malignant endocarditis		1				1
Organic disease of the heart	16	9	47	5	14	91
Angina pectoris			2	1	2	5
Aneurism	2	1	1	2	2	8
Arteriosclerosis			12		3	15
Embolism, thrombosis	2	1	1		1	5
Phlebitis	1					1
Other diseases of the lymphatic system	1					1
Purpura hemorrhagica		1	1			2
Other hemorrhages; other diseases of the circulatory system		1	3	2	6	12
<i>IV. Diseases of the respiratory system.</i>						
Laryngitis	1					1
Other diseases of the larynx				1		1
Diseases of the thyroid body					1	1
Acute bronchitis			48	12	9	69
Chronic bronchitis			9	3	1	13
Broucho-pneumonia	10	4	31	20	35	100
Pneumonia (unqualified)	1		62	12	23	98
Lobar pneumonia	73	33	10		16	132
Pleurisy	3		2	3		8
Empyema	1				1	2
Pulmonary congestion, pulmonary apoplexy			17	1		18
Gangrene of the lungs	4					4
Asthma			2	3	1	6
Pulmonary emphysema				1		1
Abscess of lungs	1	1				2
Other diseases of the respiratory system (tuberculosis excepted)				1		1

CAUSES AND PLACES OF DEATH OF EMPLOYEES AND CIVIL
POPULATION—Continued.

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pana- ma.	Colon.	Zone.	Total.
<i>V. Diseases of the digestive system.</i>						
Stomatitis.....		2	1	1	7	11
Other diseases of the mouth and annexa.....		1			1	2
Ulcer of the stomach.....	1					1
Acute gastritis.....		1	3	3	4	11
Chronic gastritis.....				2		2
Acute indigestion.....			1	2	1	4
Other diseases of the stomach (cancer excepted).....		1	3			4
Diarrhea and enteritis (under 2 years).....	10	15	269	39	58	391
Diarrhea and enteritis (2 years and over).....	2	2	36	4	4	48
Ankylostomiasis.....	1				6	7
Ascariasis.....					3	3
Other intestinal parasites.....			12			12
Appendicitis and typhlitis.....	2	4	3			9
Hernias, intestinal obstructions.....	1	1	3			5
Intestinal obstruction.....			4		4	8
Other diseases of the intestines.....	1	2	2		2	7
Duodenal ulcer.....	2	1				3
Acute yellow atrophy of the liver.....			1		1	2
Cirrhosis of the liver.....	2	1	17	1	1	22
Abscess of liver (unqualified).....		1	4			5
Amoebic abscess of the liver.....	11	2				13
Cholecystitis.....		1				1
Jaundice.....	1	1	1		2	4
Other diseases of the liver.....	2		4		1	7
Abscess of spleen.....	1					1
Other diseases of the spleen.....		1	1		1	3
Simple peritonitis (nonpuer- peral).....	2	5	4	4	4	19
Other diseases of the digestive system (cancer and tubercu- losis excepted).....	1	1				2
<i>VI. Nonvenereal diseases of the genito-urinary system and ad- nexa.</i>						
Acute nephritis.....	4	9	12	2	7	34
Bright's disease (chronic ne- phritis).....	44	37	59	11	24	175
Pyelonephrosis.....	4	3			1	8
Other diseases of the kidney and annexa.....	5					5
Cystitis.....					1	1
Stricture of the urethra.....	1					1
Vesio-vaginal fistula.....			1			1
Other diseases of the urethra, urinary abscess, etc.....	1		1			2
Hypertrophy of prostate.....			1			1
Other nonvenereal diseases of the male genital organs.....		2	2			4
Uterine tumor (noncancerous).....			1			1
Other diseases of the uterus.....			1			1
Salpingitis and other diseases of the female genital organs.....	1		2			3

CAUSES AND PLACES OF DEATH OF EMPLOYEES AND CIVIL
POPULATION—Continued.

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pana- ma.	Colon.	Zone.	Total.
VII. <i>The puerperal state.</i>						
Accidents of pregnancy.....		2			2	4
Hyperemesis gravidarum.....	1					1
Abortion.....	2					2
Puerperal hemorrhage.....					1	1
Other accidents of labor.....	1				1	2
Puerperal septicemia.....		1	4	2	3	10
Eclampsia.....	2	5	1	1	4	13
Following childbirth (not otherwise defined).....					4	4
VIII. <i>Diseases of the skin and of the cellular tissue.</i>						
Gangrene.....		1	4		1	6
Acute abscess.....			2			2
Elephantiasis.....			1			1
IX. <i>Diseases of the bones and of the organs of locomotion.</i>						
Osteomyelitis.....	1					1
X. <i>Malformations.</i>						
Congenital malformations (still- birth not included).....			1			1
XI. <i>Diseases of early infancy.</i>						
Congenital debility, icterus, and sclerema.....	4	4	10	19	34	71
Premature birth.....	12	7	21	4	38	82
Other diseases peculiar to early infancy.....	2	5	10	8	18	43
Malnutrition.....	9	5	11	21	84	130
Lack of care.....					6	6
Accidents at birth.....				1	2	3
XII. <i>Old age.</i>						
Senility.....			12	3	10	25
XIII. <i>Affections produced by ex- ternal causes.</i>						
Suicide by hanging or strangu- lation.....			1			1
Suicide by drowning.....					4	4
Suicide by firearms.....			4	2	2	8
Suicide by cutting or piercing instruments.....					1	1
Other acute poisonings.....		1				1
Conflagration.....				1		1
Burns (conflagration excepted) Accidental drowning.....	4	3	1	5	1	8
Traumatism by firearms.....			3		2	5
Traumatism by cutting or piercing instruments.....	1					1
Traumatism by fall.....	6	5	1	1	4	17

CAUSES AND PLACES OF DEATH OF EMPLOYEES AND CIVIL
POPULATION—Continued.

Diseases.	Ancon Hospi- tal.	Colon Hospi- tal.	Pana- ma.	Colon.	Zone.	Total.
XIII. Affections produced by external causes—Continued.						
Traumatism in mines and quarries.....	5	3	.....	.....	12	20
Traumatism by machines.....	2	2	.....	1	7	12
Traumatism by other crushings (vehicles, railroads, landslides, etc.).....	26	11	.....	1	50	88
Injuries by animals.....	1	.....	.....	.....	.....	1
Starvation.....	.....	.....	2	.....	.....	2
Insolation.....	.....	.....	.....	.....	1	1
Lightning.....	.....	.....	.....	.....	3	3
Electricity (lightning excepted).....	.....	.....	1	.....	3	4
Homicide by firearms.....	.....	1	1	.....	.....	2
Homicide by cutting or piercing instruments.....	2	2	1	1	5	11
Homicide by other means.....	.....	1	1	1	1	4
Fractures (cause not specified).....	.....	1	1	.....	1	3
Other external violence.....	1	2	.....	.....	2	5
XIV. Ill-defined diseases.						
Ill-defined organic diseases.....	.....	.....	1	.....	1	2
Cause of death not specified or ill-defined.....	16	.....	32	4	10	62
Infections of undetermined origin.....	4	3	2	.....	.....	9
Total.....	578	353	1,355	288	794	3,368
Stillbirths.....	4	19	154	55	110	342
Grand total.....	582	372	1,509	343	904	3,710

NOTE.—The deaths occurring in Ancon and Colon Hospitals resulting from illness, injury, or other cases admitted from the cities of Panama and Colon, or from the Canal Zone, are in the table of vital statistics, credited to the places from whence they were admitted.

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITALS OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1911.

Diseases.	Dis- charged.	Died.
<i>I. General diseases.</i>		
Typhoid fever.....	58	10
Relapsing fever.....	4	.....
Malaria fever:		
Estivo-autumnal.....	5,421	25
Tertian.....	836	.....
Quartan.....	72	.....
Mixed.....	36	.....
Undetermined.....	13	.....
Clinical.....	2,458	1
Cachexia.....	24	.....
Hemoglobinuric fever.....	86	15
Vaccinia.....	12	.....
Measles.....	127	1
Diphtheria and croup.....	28	.....
Influenza.....	244	.....
Dysentery.....	2	.....
Dysentery:		
Amebic.....	20	2
Bacillary.....	4	1
Clinical.....	48	9
Leprosy.....	1	.....
Erysipelas.....	3	.....
Chicken pox.....	12	.....
Mumps.....	121	.....
Yaws.....	2	.....
Other epidemic diseases.....	7	.....
Purulent infection and septicemia.....	5	7
Pycmia.....	1	5
Pyemia and septicemia, pneumococcic.....	.....	3
Tetanus.....	2	2
Pellagra.....	2	.....
Tuberculosis of the lungs.....	93	22
Acute miliary tuberculosis.....	.....	3
Tuberculous meningitis.....	.....	2
Abdominal tuberculosis.....	6	2
Pott's disease.....	8	.....
White swellings.....	1	.....
Tuberculosis of the—		
Bones and joints.....	16	.....
Skin.....	2	.....
Lymph glands.....	11	.....
Genito-urinary organs.....	4	1
Other organs.....	5	.....
Disseminated tuberculosis.....	.....	26
Syphilis.....	1	.....
A. Primary.....	19	.....
B. Secondary.....	187	.....
C. Tertiary.....	105	1
D. Hereditary.....	2	.....
E. Period not stated.....	25	.....
Soft chancre.....	211	.....
Adenitis chancroidal.....	397	.....
Gonococcus infection.....	275	.....
Gonorrhea.....	244	.....
Gonorrheal arthritis.....	32	.....
Gonorrheal ophthalmia.....	9	.....
Cancer and other malignant tumors of the—		
Buccal cavity.....	2	1
Stomach and liver.....	7	4
Peritoneum, intestines, rectum.....	3	.....

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITALS OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1911—Continued.

Diseases.	Discharged.	Died.
<i>I. General diseases—Continued.</i>		
Cancer and other malignant tumors of the—		
Skin.....	1	
Other organs and of organs not specified.....	5	4
Other tumors (tumors of the female genital organs excepted)...	43	
Acute articular rheumatism.....	24	
Chronic rheumatism and gout.....	13	
Gout.....	1	
Arthritis deformans.....	2	
Muscular rheumatism.....	54	
Diabetes.....	4	
Exophthalmic goiter.....	1	
Leuchemia, lymphatic.....		1
Anemia:		
Chlorosis.....	61	
Primary, pernicious.....	1	
Alcoholism (acute or chronic).....	26	
Alcoholism acute.....	61	1
Alcoholic psychosis.....	5	
Morphinism.....	1	
Other chronic poisonings.....	1	
<i>II. Diseases of the nervous system and of the organs of special sense.</i>		
Simple meningitis.....		2
Pneumococcus meningitis.....		4
Cerebral hemorrhage, apoplexy.....	3	
Softening of the brain.....		2
Paralysis without specified cause.....	13	
Other forms of mental alienation.....	27	2
Epilepsy.....	22	1
Hysteria.....	14	
Neuralgia.....	35	
Neuritis.....	83	
Neurasthenia.....	154	
Other diseases of the nervous system.....	37	
Follicular conjunctivitis.....	25	
Trachoma.....	3	
Other diseases of the eye and its adnexa.....	668	
Diseases of the ear.....	217	
<i>III. Diseases of the circulatory system.</i>		
Pericarditis.....	2	2
Acute endocarditis.....	5	2
Organic disease of the heart.....	30	11
Angina pectoris.....	1	
Aneurism.....	2	1
Arteriosclerosis.....	7	
Other diseases of the arteries.....	1	
Embolism, thrombosis.....		1
Hemorrhoids.....	131	
Varices.....	21	
Varicocele.....	45	
Phlebitis.....	9	1
Other diseases of the veins.....	3	
Lymph adenitis (nonvenereal).....	103	
Other diseases of the lymphatic system.....	65	
Pupura hemorrhagica.....	1	
Other hemorrhages; other diseases of the circulatory system...	2	1

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITALS OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1911—Continued.

Diseases.	Dis- charged.	Died.
<i>IV. Diseases of the respiratory system.</i>		
Inflammation of accessory nasal sinuses.....	51	.....
Myiasis of nasal fossæ and sinuses.....	1	.....
Other diseases of nasal fossæ.....	212	.....
Laryngitis.....	12	.....
Diseases of the thyroid body.....	4	.....
Acute bronchitis.....	313	.....
Chronic bronchitis.....	82	.....
Broncho-pneumonia.....	13	2
Lobar pneumonia.....	271	88
Pleurisy.....	115	3
Empyema.....	9	1
Pulmonary congestion, pulmonary apoplexy.....	2	.....
Gangrene of the lungs.....	.....	2
Asthma.....	28	.....
Pulmonary emphysema.....	6	.....
Abscess of lungs.....	2	1
Other diseases of the respiratory system (tuberculosis excepted).....	6	1
<i>V. Diseases of the digestive system.</i>		
Diseases of the teeth and gums.....	19	.....
Stomatitis.....	2	.....
Other diseases of the mouth and annexa.....	48	.....
Pharyngitis.....	85	.....
Follicular tonsillitis.....	211	.....
Other diseases of the pharynx.....	61	.....
Foreign body in the œsophagus.....	1	.....
Stricture of the œsophagus.....	1	.....
Other diseases of the œsophagus.....	1	.....
Ulcer of the stomach.....	15	.....
Gastroectasis.....	1	.....
Acute gastritis.....	37	.....
Chronic gastritis.....	62	.....
Acute indigestion.....	191	.....
Other diseases of the stomach (cancer excepted).....	18	1
Diarrhea and enteritis (two years and over).....	193	2
Ankylostomiasis.....	58	.....
Ascariidiasis.....	1	.....
Tapeworm.....	2	.....
Strongyloides.....	3	.....
Other intestinal parasites.....	5	.....
Appendicitis and typhlitis.....	168	2
Hernias, intestinal obstructions.....	14	1
Inguinal hernia.....	265	.....
Other hernias.....	9	.....
Intestinal obstructions.....	3	.....
Diseases of the anus and fecal fistulas.....	48	.....
Other diseases of the intestines.....	125	.....
Duodenal ulcer.....	16	2
Bilharziosis.....	2	.....
Cirrhosis of the liver.....	17	1
Biliary calculi.....	3	.....
Abscess of liver (unqualified).....	10	1
Amœbic abscess of the liver.....	4	7
Cholecystitis.....	12	.....
Jaundice.....	28	.....
Other diseases of the liver.....	9	1
Other diseases of the spleen.....	3	1

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITALS OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1911—Continued.

Diseases.	Dis- charged.	Died.
<i>V. Diseases of the digestive system—Continued.</i>		
Simple peritonitis (nonpuerperal).....	16	1
Other diseases of the digestive system (cancer and tuberculosis excepted).....	6	1
<i>VI. Nonvenereal diseases of the genito-urinary system and annexa.</i>		
Acute nephritis.....	8	4
Bright's disease (chronic nephritis).....	101	28
Movable kidney.....	1	.....
Pyelonephrosis.....	2	1
Other diseases of the kidney and annexa.....	14	3
Calculi of the urinary passages.....	13	.....
Diseases of the bladder.....	6	.....
Cystitis.....	27	.....
Stricture of the urethra.....	55	1
Other diseases of the urethra, urinary abscess, etc.....	47	.....
Acute prostatitis.....	4	.....
Chronic prostatitis.....	1	.....
Abscess of the prostate.....	1	.....
Other diseases of the prostate.....	1	.....
Hydrocele.....	80	.....
Chylocele.....	6	.....
Other nonvenereal diseases of the male genital organs.....	101	.....
Uterine tumor (noncancerous).....	1	.....
Metritis.....	2	.....
Other diseases of the uterus.....	4	.....
Salpingitis and other diseases of the female genital organs.....	3	.....
Nonpuerperal diseases of the breast (cancer excepted).....	2	.....
Benign tumor of breast.....	1	.....
<i>VII. The puerperal state.</i>		
Normal labor.....	1	.....
Hyperemesis gravidarum.....	1	.....
Abortion.....	1	.....
<i>VIII. Diseases of the skin and of the cellular tissue.</i>		
Furuncle.....	103	.....
Carbuncle.....	19	.....
Acute abscess.....	152	.....
Phlegmon.....	34	.....
Scabies.....	5	.....
Other diseases of the skin and annexa.....	509	.....
Pemphigus contagiosus.....	1	.....
Mycetoma.....	1	.....
Filaria medinensis.....	1	.....
Elephantiasis.....	8	.....
Dhobie itch.....	30	.....
Ulcer of the skin.....	163	.....
Tropical ulcer.....	6	.....
Ainhum.....	1	.....
Impetigo contagiosa.....	3	.....
Urticaria.....	3	.....
<i>IX. Diseases of the bones and of the organs of locomotion.</i>		
Caries (nontuberculous).....	7	.....
Mastoid abscess.....	4	.....
Osteomyelitis.....	10	.....

TABLE SHOWING DISCHARGES AND DEATHS OF EMPLOYEES IN THE HOSPITAL OF THE ISTHMIAN CANAL COMMISSION, FROM ALL CAUSES, FOR THE YEAR 1911—Continued.

Diseases.	Discharged.	Died.
<i>IX. Diseases of the bones and of the organs of locomotion—Con.</i>		
Periostitis.....	29	.....
Other diseases of the bones (tuberculosis excepted).....	12	.....
Ankylosis.....	8	.....
Arthritis.....	86	.....
Synovitis.....	51	.....
Other diseases of the joints (tuberculosis and rheumatism excepted).....	41	.....
Amputations.....	12	.....
Other diseases of the organs of locomotion.....	128	.....
<i>X. Malformations.</i>		
Congenital malformations (stillbirth not included).....	7	.....
<i>XII. Old age.</i>		
Senility.....	3	.....
<i>XIII. Affections produced by external causes.</i>		
Poisoning by food.....	13	.....
Venomous bites and stings.....	4	.....
Snake bites.....	1	.....
Other acute poisonings.....	1	1
Burns (conflagration excepted).....	140	1
Absorption of deleterious gases (conflagration excepted).....	1	.....
Traumatism by—		
Firearms.....	15	.....
Cutting or piercing instruments.....	502	1
Fall.....	124	3
Mines and quarries.....	2,165	8
Machines.....	187	1
Other crushings (vehicles, railroads, landslides, etc.).....	371	41
Injuries by animals.....	1	1
Ovrexertion.....	1	.....
Lightning.....	2	.....
Electricity (lightning excepted).....	7	.....
Homicide by cutting or piercing instruments.....	.....	2
Homicide by other means.....	.....	1
Dislocations.....	37	.....
Sprains.....	258	.....
Fractures (cause not specified).....	407	1
Other external violence.....	12	.....
<i>XIV. Ill-defined diseases.</i>		
Ill-defined organic diseases.....	10	.....
Cause of death or disease not specified or ill-defined.....	52	4
No disease, feigned disease.....	49	.....
Infections of undetermined origin.....	36	1
Total.....	22,554	405

CONSOLIDATED HOSPITAL REPORT.

Hospitals.	Re-main-ing Jan. 1.		Admitted.		Died.		Discharged.		Trans-ferred.		Re-main-ing Dec. 31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
<i>Ancon Hospital.</i>												
Employees.....	247	294	8,281	9,632	58	223	5,900	9,260	2,355	52	215	391
Nonemployees.....	83	68	2,302	1,798	47	220	2,201	1,493	50	59	87	94
Insane.....	31	267	21	241	2	28	13	146	7	72	30	262
Total.....	361	629	10,604	11,671	107	471	8,114	10,899	2,412	183	332	747
<i>Colon Hospital.</i>												
Employees.....	83	98	3,033	2,125	28	90	2,391	2,031	626	26	71	76
Nonemployees.....	34	69	1,132	1,519	30	205	1,075	1,307	24	21	37	55
Total.....	117	167	4,165	3,644	58	295	3,466	3,338	650	47	108	131
<i>Culebra Hospital.</i>												
Employees.....			3		2		1					
Nonemployees.....	2	6	95	265		6	92	243	3	17	2	5
Total.....	2	6	98	265	2	6	93	243	3	17	2	5
<i>Palo Seco Leper Asylum.</i>												
Employees.....	1		1	1			2	1				
Nonemployees.....	1	34	1	21		2		4		2	2	47
Total.....	2	34	2	22		2	2	5		2	2	47
<i>Taboga Sanitarium.</i>												
Employees.....	51		3,002				2,960		54		39	
Nonemployees.....	8		723				710				21	
Total.....	59		3,725				3,670		54		60	
Grand total:												
Employees.....	382	392	14,320	11,758	88	313	11,254	11,292	3,035	78	325	467
Nonemployees...	128	177	4,253	3,603	77	433	4,078	3,047	77	99	149	201
Insane.....	31	267	21	241	2	28	13	146	7	72	30	262
Total.....	541	836	18,594	15,602	167	774	15,345	14,485	3,119	249	504	930

CONSOLIDATED SICK CAMP REPORT.

Stations.	Re- main- ing Jan. 1.		Admitted.		Died.		Discharged.		Trans- ferred.		Re- main- ing Dec.31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Corozal.....			2	3			2	3				
Miraflores.....	3	3	834	594			484	402	353	195		
Pedro Miguel.....	9	5	462	546	1		334	382	135	165	2	3
Paraíso.....			171	519			132	381	38	135	1	3
Culebra.....	7	5	595	1,003	3	1	314	611	285	393		3
Empire.....	7	5	441	1,088		2	352	744	94	343	2	4
Las Cascadas.....	3	3	620	596		5	497	488	124	101	2	5
Bas Obispo.....	1	8	293	659			245	598	41	62	8	7
Gorgona.....		8	117	825			90	574	27	255		4
San Pablo.....	8	6	71	69			70	71	9	4		
Tabernilla.....	10	6	122	172			103	130	29	48		
Gatun.....	10	8	1,812	3,835			1,161	2,194	656	1,641	5	8
Cristobal.....	2	9	248	1,197			160	828	90	372		6
Porto Bello.....	4	7	198	480	1		163	386	39	94		6
Nombre de Dios.....			6	101			5	97	1	4		
Toro Point.....	2	3	213	404			188	367	23	37	4	3
Total.....	66	76	6,205	12,091	3	10	4,300	8,256	1,944	3,849	24	52

CONSOLIDATED REPORT OF EMPLOYEES SICK IN QUARTERS.

Stations.	Days excused for quarters.			New patients excused for quarters.		
	White.	Colored.	Total.	White.	Colored.	Total.
Ancon.....	766	831	1,597	330	191	521
Balboa.....	528	57	585	293	35	328
Corozal.....	344		344	220		220
Miraflores.....	336	88	424	111	69	180
Pedro Miguel.....	1,054	137	1,191	445	48	493
Paraíso.....	713	20	733	263	5	268
Culebra.....	1,007	158	1,165	444	51	495
Empire.....	2,049	3	2,052	1,047	2	1,049
Las Cascadas.....	857	5	862	323	2	325
Bas Obispo.....	385	3	388	148	1	149
Gorgona.....	3,839	18	3,857	1,728	1	1,729
San Pablo.....	88	3	91	38	3	41
Tabernilla.....	343	1	344	122	1	123
Bohío.....		8	8		2	2
Gatun.....	1,620	1	1,621	806	1	807
Cristobal.....	2,326	1,046	3,372	1,148	234	1,382
Porto Bello.....	222		222	135		135
Nombre de Dios.....	20	5	25	9	1	10
Toro Point.....	183		183	91		91
Total.....	16,680	2,384	19,064	7,701	647	8,348

CONSOLIDATED HOSPITAL, SICK CAMP, AND SICK-IN-QUARTERS REPORT.

	Remain- ing Jan. 1.		Admitted.		Died.		Discharged.		Transferred.		Remain- ing Dec. 31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Hospitals.	541	836	18,594	15,602	167	774	15,345	14,485	3,119	249	504	930
Sick camps.	66	76	6,205	12,091	3	10	4,300	8,256	1,944	3,849	24	52
Total.	607	912	24,799	27,693	170	784	19,645	22,741	5,063	4,098	528	982

	White.	Colored.	Total.
Total admissions to hospitals and sick camps.	24,799	27,693	52,492
Number of employees sick in quarters.	7,701	647	8,348
Total.	32,500	28,340	60,840
Less number of patients transferred from sick camps to hospitals, and from hospitals to sanitarium, whose admissions are duplicated in above figures.	5,063	4,098	9,161
Net admissions to hospitals and sick camps and those sick in quarters.	27,437	24,242	51,679

CONSOLIDATED DISPENSARY REPORT.

Stations.	Employees.			Nonemployees.			Total.		
	White.	Col- ored.	Total.	White.	Col- ored.	Total.	White.	Col- ored.	Total.
Ancon.	5,894	14,615	20,509	3,248	2,915	6,163	9,142	17,530	26,672
Balboa.	13,386	15,382	28,768	4,149	1,535	5,684	17,535	16,917	34,452
Corozal.	8,942	6,121	15,063	3,086	602	3,688	12,028	6,723	18,751
Miraflores.	15,564	17,178	32,742	388	887	1,275	15,952	18,065	34,017
Pedro Miguel. .	16,309	15,292	31,601	3,051	2,261	5,312	19,360	17,553	36,913
Paraiso.	5,359	4,749	10,108	2,809	1,228	4,037	8,168	5,977	14,145
Culebra.	25,273	24,824	50,097	10,904	10,484	21,388	36,177	35,308	71,485
Empire.	21,672	29,280	50,952	12,850	8,840	21,690	34,522	38,120	72,642
Las Cascadas. .	9,941	8,551	18,492	5,348	3,990	9,338	15,289	12,541	27,830
Bas Obispo.	16,512	14,959	31,471	3,641	2,017	5,658	20,153	16,976	37,129
Gorgona.	22,753	21,037	43,790	5,208	4,605	9,813	27,961	25,642	53,603
San Pablo.	3,955	5,193	9,148	1,733	3,040	4,773	5,688	8,233	13,921
Tabernilla.	4,757	4,469	9,226	2,917	2,775	5,692	7,674	7,244	14,918
Frijoles.	22	183	205	25	77	102	47	260	307
Bohio.	77	1,003	1,080	109	1,125	1,234	186	2,128	2,314
Gatun.	43,861	47,956	91,817	4,548	2,847	7,395	48,409	50,803	99,212
Cristobal.	16,761	21,117	37,878	7,668	5,019	12,687	24,429	26,136	50,565
Porto Bello.	5,385	7,615	13,000	642	1,152	1,794	6,027	8,767	14,794
Nombre de Dios.	956	1,993	2,949	33	590	623	989	2,583	3,572
Toro Point.	6,680	8,443	15,123	315	405	720	6,995	8,848	15,843
Total.	244,059	269,960	514,019	72,672	56,394	129,066	316,731	326,354	643,085

AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK IN HOSPITALS, SICK CAMPS, AND QUARTERS.

	Hospitals.		
	White.	Colored.	Total.
Ancon Hospital.....	297.16	425.49	722.65
Colon Hospital.....	111.96	110.83	222.79
Culebra Hospital.....	.003		.003
Palo Seco Leper Asylum.....	.25	.09	.34
Taboga Sanitarium.....	58.92		58.92
Total.....	468.293	536.41	1,004.703

	Sick camps.			Sick in quarters.		
	White.	Colored.	Total.	White.	Colored.	Total.
Ancon.....				2.10	2.28	4.38
Balboa.....				1.45	.15	1.60
Corozal.....	0.01	0.01	0.02	.94		.94
Miraflores.....	5.07	3.07	8.14	.92	.24	1.16
Pedro Miguel.....	4.31	5.31	9.62	2.89	.37	3.26
Paraíso.....	1.38	3.90	5.28	1.95	.05	2.00
Culebra.....	4.43	8.11	12.54	2.76	.43	3.19
Empire.....	3.55	7.62	11.17	5.61	.01	5.62
Las Cascadas.....	5.47	5.20	10.67	2.35	.01	2.36
Bas Obispo.....	2.80	6.85	9.65	1.05	.01	1.06
Gorgona.....	.90	6.25	7.15	10.52	.05	10.57
San Pablo.....	.98	.83	1.81	.24	.01	.25
Tabernilla.....	1.40	1.65	3.05	.94	.003	.943
Bohío.....					.02	.02
Gatun.....	10.69	20.50	31.19	4.44	.003	4.443
Cristobal.....	2.08	9.61	11.69	6.37	2.87	9.24
Porto Bello.....	2.15	5.54	7.69	.61		.61
Nombre de Dios.....	.06	.79	.85	.06	.01	.07
Toro Point.....	2.86	5.42	8.28	.50		.50
Total.....	48.14	90.66	138.80	45.70	6.516	52.216

AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK.

	White.	Colored.	Total.
Hospitals.....	468.293	536.41	1004.703
Sick camps.....	48.14	90.66	138.80
Sick in quarters.....	45.70	6.516	52.216
Total.....	562.133	633.586	1,195.719

AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK PER 1,000.

	White.	Colored.	Total.
Hospitals.....	38.22	14.65	20.56
Sick camps.....	3.93	2.47	2.84
Sick in quarters.....	3.73	.18	1.06
Total.....	45.88	17.30	24.46

AVERAGE NUMBER OF DAYS' TREATMENT PER EMPLOYEE IN HOSPITALS, SICK CAMPS, AND QUARTERS.

Hospitals.	White.	Colored.	Total.
Ancon Hospital.....	13.05	16.29	14.78
Colon Hospital.....	13.42	18.84	15.66
Culebra Hospital.....	.33		.33
Palo Seco Leper Asylum.....	46.50	32.00	41.67
Taboga Sanitarium.....	7.14		7.14
Total.....	11.89	16.76	14.07

	Sick camps.			Quarters.		
	White.	Colored.	Total.	White.	Colored.	Total.
Ancon.....				2.32	4.35	3.07
Balboa.....				2.48	1.63	1.78
Corozal.....	1.00	1.33	1.10	1.56		1.56
Miraflores.....	2.21	1.88	2.07	3.03	1.28	2.36
Pedro Miguel.....	3.36	3.54	3.45	2.37	2.85	2.42
Paraíso.....	2.96	2.76	2.81	2.71	4.00	2.74
Culebra.....	2.69	2.95	2.85	2.27	3.09	2.35
Empire.....	2.91	2.55	2.66	1.96	1.50	1.96
Las Cascadas.....	3.21	3.19	3.20	2.65	2.50	2.65
Bas Obispo.....	3.57	3.79	3.72	2.60	3.00	2.60
Gorgona.....	2.80	2.75	2.76	2.22	18.00	2.23
San Pablo.....	4.51	4.04	4.28	2.32	1.00	2.22
Tabernilla.....	3.86	3.39	3.59	2.81	1.00	2.80
Bohío.....					4.00	4.00
Gatun.....	2.15	1.95	2.01	2.01	1.00	2.01
Cristobal.....	3.03	2.92	2.94	2.03	4.47	2.44
Porto Bello.....	3.88	4.21	4.10	1.64		1.64
Nombre de Dios.....	3.83	2.84	2.90	2.22	5.00	2.50
Toro Point.....	4.95	4.90	4.92	2.01		2.01
Total.....	2.81	2.73	2.75	2.17	3.68	2.28

SUBSISTENCE AND OPERATING EXPENSES.

	Hospitals.	Sick camps.	Total.
SUBSISTENCE EXPENSES.			
Number of days' rations issued to patients.....	594,517	50,662	645,179
Cost of rations issued to patients.....	\$148,379.02	\$11,370.55	\$159,749.57
Cost of subsistence per patient per day.....	\$0.251	\$0.224	\$0.247
OPERATING EXPENSES.			
Number of days' relief furnished patients.....	594,517	50,662	645,179
Cost of operation.....	\$719,525.67	\$22,144.79	\$741,670.46
Cost per capita per day.....	\$1.21	\$0.44	\$1.15
Cost of operation with amount received from outside patients, etc., deducted.....	\$578,164.33	\$22,144.79	\$600,309.12
Cost per capita per day with above deduction.....	\$0.97	\$0.44	\$0.93
Cost of dispensaries.....	\$167,726.10		

OUTSIDE PATIENTS TREATED IN HOSPITALS AND AMOUNTS COLLECTED FOR THEIR TREATMENT.

	Number of cases treated.	Number of days' relief.	Amount.
Patients for whom the Republic of Panama pays 75 cents per day.....	2,739	76,442	\$57,331.50
Patients for whom the Canal Zone government pays 30 cents per day.....	412	10,052	3,015.60
Patients paying 30 cents per day for themselves..	2,733	25,440	7,623.00
Patients from the Republic of Panama paying other prices.....	1,526	13,152	27,936.45
Patients from the Canal Zone paying other prices..	3,387	26,187	34,599.49
Patients from the Canal Zone not paying.....	2,619	52,247	.....
Patients from the Republic of Panama not paying..	1,049	16,804	.....
Total.....	14,465	220,324	130,506.04

NOTE.—Patients carried from one month to another are considered as separate cases in above table.

SURGICAL OPERATIONS PERFORMED IN HOSPITALS.

	Number.	Died.
Amputations:		
Shoulder.....	1	.....
Arm.....	8	2
Hip joint.....	2	.....
Thigh.....	15	1
Leg.....	21	.....
Foot.....	5	.....
Digits, multiple.....	56	.....
Arm, double.....	1	1
Thigh, double.....	6	3
Leg, double.....	4	.....
Arm and leg.....	1	1
Operations on bones:		
Craniectomy, decompressive.....	21	8
Laminectomy.....	5	3
Osteotomy.....	27	1
Excision of maxilla.....	1	.....
Resection of wrist.....	2	.....
Resection of hip.....	1	.....
Wiring of fractures, simple.....	24	.....
Wiring of fractures, compound.....	33	.....
Adenectomy:		
Cervical.....	27	1
Axillary.....	14	.....
Inguinal, single.....	390	.....
Inguinal, double.....	89	.....
Femoral.....	29	.....
Herniotomy:		
Inguinal, single.....	219	.....
Inguinal, double.....	125	.....
Femoral.....	4	.....
Ventral.....	22	.....
Combined (any two of the above).....	4	.....
Strangulated.....	2	1

SURGICAL OPERATIONS PERFORMED IN HOSPITALS—
Continued.

	Number.	Died.
Genito-urinary tract:		
Nephrotomy.....	4	.....
Nephrectomy.....	1	.....
Nephropexy.....	2	.....
Perinephritic abscess, drainage of.....	2	.....
Ureterotomy.....	4	.....
Cystotomy.....	3	.....
Urethrotomy—		
Internal.....	29	.....
External.....	58	2
Prostatectomy.....	1	.....
Varicocele, radical cure.....	66	.....
Hydrocele—		
Single, radical cure.....	84	.....
Double, radical cure.....	22	.....
Orchidectomy.....	23	.....
Epididymotomy.....	59	.....
Amputation of scrotum.....	3	1
Amputation of penis.....	2	.....
Curetage uteri.....	192	.....
Perineoplasty.....	26	.....
Trachelorrhaphy.....	22	.....
Vaginal sections.....	52	1
Vaginal punctures.....	1	.....
Obstetrical:		
Accouchement force.....	2	1
High forceps.....	7	.....
Low forceps.....	31	.....
Version.....	14	.....
Perineorrhaphy.....	118	.....
Thorax:		
Thoracotomy.....	20	2
Pneumothoracotomy.....	5	2
Excision of breast.....	2	.....
Excision of breast and axilla.....	5	.....
Gunshot wound of chest, operation for.....	2	.....
Stab wound of chest, operation for.....	3	.....
Rectum:		
Hemorrhoids, radical cure.....	157	.....
Fistula in anus, excision of.....	38	.....
General:		
Excision of tongue.....	1	1
Thyroidectomy.....	6	.....
Nerve stretching.....	1	.....
Aneurismorrhaphy.....	1	.....
Varicose veins, excision of.....	25	.....
Tenorrhaphy.....	13	.....
Myorrhaphy.....	3	.....
Excision of surface neoplasms.....	24	.....
Gunshot wound of soft parts, operation for.....	2	.....
Stab wound of soft parts, operation for.....	2	.....
Extensive injuries to soft parts, operation for.....	5	.....
Plastic operation for congenital defect.....	8	.....
Plastic operation for severe injuries.....	29	.....
Plastic operation for effects of disease.....	51	.....
Skin graft.....	55	.....

SURGICAL OPERATIONS PERFORMED IN HOSPITALS—
Continued.

	Number.	Died.
Laparotomy:		
For general peritonitis.....	21	7
For tuberculous peritonitis.....	9	2
For intestinal obstruction.....	6	—
Exploratory.....	42	4
Gastrotomy.....	1	—
Gastroenterostomy.....	10	1
Enteroenterostomy.....	1	—
Enterectomy.....	1	—
Enterorrhaphy.....	4	—
Appendectomy.....	191	—
Appendectomy with local peritonitis.....	27	1
Appendectomy with general peritonitis.....	19	6
Appendicostomy.....	1	—
Cecostomy.....	2	1
Colostomy.....	1	—
Sigmoidopexy.....	3	—
Cholecystotomy.....	9	1
Cholecystostomy.....	7	—
Cholecystectomy.....	1	—
Abscess of liver:		
Laparo-hepatotomy for.....	17	9
Thoraco-hepatotomy for.....	15	3
Splenectomy.....	1	—
Panhysterectomy.....	4	—
Supravaginal hysterectomy.....	19	—
Hysteromyomectomy.....	33	1
Myomectomy.....	9	—
Salpingectomy:		
Single.....	22	—
Double.....	18	—
Salpingo-oophorectomy.....	18	—
Ovarian cystectomy.....	9	—
Oophorectomy.....	1	—
Suspensio-uteri.....	53	—
Plastic operation for chronic pelvic peritonitis.....	56	1
For ectopic gestation.....	9	—
For trauma:		
General peritonitis.....	3	2
Hematoperitoneum.....	4	1
Rupture of liver.....	1	1
Rupture of spleen.....	5	1
Gunshot wound of abdomen.....	1	—
Stab wound of abdomen.....	1	1
Major operations, various other.....	68	—
Minor operations, various.....	4,533	4
Total.....	7,701	79

OPERATIONS AND WORK PERFORMED IN EYE, EAR, NOSE, AND
THROAT CLINICS.

Operations.	Number.	Died.
Abscess:		
Alveolar.....	3	
Lingual, drainage.....	1	
Adenectomy.....	102	
Adenectomy and tonsillectomy.....	6	
Adenectomy and tonsillotomy.....	3	
Advancement of external rectus.....	8	
Amputation of uvula.....	2	
Blepharoplasty (with Fricke flap).....	1	
Cataract:		
Discission of.....	15	
Needling.....	1	
Cellulitis, lower jaw, incision and curetage.....	1	
Conjunctivitis, follicular, grattage.....	2	
Curetage, ethmoid cells, left.....	2	
Dacryocystotomy.....	6	
Dilation of lachrymal sac.....	8	
Drainage of maxillary sinus.....	11	
Drainage of frontal sinus.....	1	
Enucleation.....	10	
Ethmoidotomy.....	2	
Evisceration.....	4	
Excision of—		
Chalazion.....	14	
Cyst, cervical.....	2	
Hard palate.....	1	
Keloid.....	1	
Lacrimal sac.....	2	
Xanthoma of lids.....	2	
Expression for follicular conjunctivitis.....	35	
Expression for trachoma.....	3	
External canthoplasty.....	1	
Extraction of cataract.....	17	
Incision and drainage of—		
Abscess, recto-bulbar.....	1	
Cellulitis eyelid.....	2	
Incision of—		
Alveolar abscess.....	3	
Chalazion.....	1	
Dacryocyst.....	1	
Peritonsillar abscess.....	8	
Thyroid abscess.....	1	
Intubation.....	2	
Iridectomy.....	28	
Keratotomy.....	1	
Killian's operation—frontal sinus.....	4	
Lachrymal canaliculus incised.....	3	
Lachrymal duct probed.....	26	
Laryngeal sinus, closure.....	1	
Laryngo-fissure.....	1	
Mastoidectomy.....	12	
Mastoidotomy:		
Simple.....	5	
Radical.....	2	
Maxillary antrum, radical.....	1	
Ossiculectomy.....	3	
Paracentesis of cornea.....	4	
Paracentesis of membrana tympani.....	16	
Plastic on ear.....	4	
Plastic on eyelid.....	14	
Plastic:		
Face.....	4	
Nose.....	11	

OPERATIONS AND WORK PERFORMED IN EYE, EAR, NOSE, AND
THROAT CLINICS—Continued.

Operations.	Number.	Died.
Plastic closure, hard and soft palate.....	3	.....
Polyoid growth tonsil removed.....	1	.....
Pterygium:		
Ablation.....	23	.....
Transplantation.....	45	.....
Removal of—		
Aural polyp.....	2	.....
Foreign body from ear.....	3	.....
Foreign body from nose.....	1	.....
Nasal polyp.....	22	.....
Septal spurs.....	12	.....
Submucous cyst extirpated.....	1	.....
Submucous resection of nasal septum.....	183	.....
Subperiosteal abscess.....	1	.....
Symblepharon, plastic.....	1	.....
Tarsalectomy for trachoma.....	1	.....
Tenotomy.....	5	.....
Tonsillectomy.....	188	.....
Tonsillotomy.....	21	.....
Tracheotomy.....	1	.....
Turbinectomy.....	51	.....
Various minor operations.....	1,416	.....
Total.....	2,407	.....
Refractions.....	3,108	.....
Outside cases treated.....	18,849	.....
Grand total.....	24,364	.....

CONSOLIDATED WARD LABORATORY⁷ REPORT OF ALL HOSPITALS.

Blood examinations.....	22,619
Estivo-autumnal.....	7,487
Tertian, single.....	1,218
Tertian, double.....	7
Mixed tertian and estivo-autumnal.....	47
Quartan.....	110
Lepra bacilli.....	2
Differential blood counts.....	965
Leucocyte counts.....	3,288
Red blood counts.....	369
Red and white blood counts.....	43
Hemoglobin estimations.....	703
Filaria.....	44
Spirillum Novyi.....	3
Guaiac and turpentine tests for invisible blood.....	935
Treponema.....	1
Erythrocyte counts.....	10
Stool examinations.....	12,261
Hymenolepis nana.....	1
Monadena.....	86
Ascaris lumbricoides.....	615
Uncinaria ova.....	1,722
Uncinaria worms.....	3
Tricocephalus dispar.....	1,189

Stool examinations—Continued.

Strongyloides intestinalis.....	545
Tenia.....	2
Tenia saginata.....	5
Ameba.....	214
Mucus.....	7
Bathreoccephalus latus.....	1
Ciliated monads.....	249
Bilharzia.....	10
Pus and blood.....	1, 257
Pus and epithelial cells.....	122
Balantidium coli.....	9
Tubercle bacilli.....	70
Oxyuris vermicularis.....	3
Entameba, histolytica.....	9
Thymol treatments.....	34
Entameba coli.....	2
Trichuris trichinura.....	3
Paramorecium coli.....	1
Bile.....	1
Red blood cells.....	16
Urine examinations.....	33, 892
Albumen.....	8, 095
Albumen and casts.....	7, 101
Sugar.....	234
Pus and blood.....	1, 519
Gonococci.....	4
Indican.....	15
Epithelium.....	680
Bile.....	15
Diazo reactions.....	93
Microscopical examinations.....	913
Urea estimations.....	2
Tubercle bacilli.....	27
Hemin crystals.....	113
Guaiac tests.....	142
Red blood cells.....	37
White blood cells.....	4
Pus and epithelium.....	197
Phosphates.....	1
Ciliated monads.....	2
Vermis.....	1
Bacilli, acid fast.....	1
Sputum examinations.....	2, 108
Tubercle bacilli.....	286
Pneumococci.....	4
Ameba.....	1
Blood.....	1
Miscellaneous:	
Examinations of pleural effusions.....	2
Examinations of spinal fluid.....	2
Examinations of pus, blood, and tissue.....	27
Examinations of various smears and discharges.....	280
Gastric analyses.....	81
Test to determine coagulation period of blood.....	1

ANCON HOSPITAL.

Class.	Re-main-ing Jan. 1.		Admitted.		Died.		Dis-charged.		Trans-ferred.		Re-main-ing Dec. 31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Isthmian Canal Com-mission employees....	233	229	7,824	7,520	58	149	5,537	7,269	2,273	43	195	288
Panama R. R em- ployees.....	8	65	457	2,112	...	74	363	1,991	82	9	20	103
Pay patients.....	64	35	1,960	1,155	36	77	1,857	1,029	48	29	83	55
Charity patients.....	19	33	342	643	11	143	344	464	2	30	4	39
Insane patients.....	31	267	21	241	2	28	13	146	7	72	30	262
Total.....	361	629	10,604	11,671	107	471	8,114	10,899	2,412	183	332	747

	White.	Colored.	Total
Average number of days' treatment per employee for the year.....	13.05	16.29	14.78
Average number of employees constantly sick dur- ing the year.....	297.16	425.49	722.65
Number of days' relief furnished patients.....			424,416
Cost of subsistence per patient per day.....			\$0.211

NATIONALITY.

Class.	Number. treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Isthmian Canal Commission employees.....	15,812	2,810	22	5,026	7,954
Panama R. R. employees.....	2,642	211	.....	227	2,204
Pay patients.....	3,214	1,299	1	732	1,182
Charity patients.....	1,037	172	.....	126	739
Insane patients.....	560	6	.....	52	502
Total.....	23,265	4,498	23	6,163	12,581

OPERATIONS.

(See report of all surgical operations.)

LABORATORY REPORT.

(See consolidated ward laboratory report.)

COLON HOSPITAL.

Class.	Re-main-ing Jan. 1.		Admitted.		Died.		Dis-charged.		Trans-ferred.		Re-main-ing Dec.31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Isthmian Canal Commis-sion employees.....	74	63	2,496	1,327	22	51	1,986	1,278	505	14	57	47
Panama R. R. employees...	9	35	537	798	6	39	405	753	121	12	14	29
Private pay.....	24	17	899	839	18	93	852	736	23	5	21	22
Municipal pay.....	12	28	105	105	2	25	24	76	....	3	2	13
Zone charity.....	10	40	214	575	10	87	199	495	1	13	14	20
Total.....	117	167	4,165	3,644	58	295	3,466	3,338	650	47	108	131

	White.	Colored.	Total.
Average number of days' treatment per employee for the year.....	13.42	18.84	15.66
Average number of employees constantly sick during the year.....	111.96	110.83	222.79
Number of days' relief furnished patients.....			123,598
Cost of subsistence per patient per day.....			\$0.289

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		W.	C.	W.	C.
Isthmian Canal Commission employees.....	3,960	1,686	2	824	1,448
Panama R. R. employees....	1,379	311	.....	184	884
Private pay.....	1,770	571	.....	320	879
Municipal pay.....	145	.....	.....	28	117
Zone charity.....	839	123	1	109	606
Total.....	8,093	2,691	3	1,465	3,934

OPERATIONS.

(See report of all surgical operations.)

LABORATORY REPORT.

(See consolidated ward laboratory report.)

CULEBRA HOSPITAL.

Class.	Re-main-ing Jan. 1		Admit-ted.		Died.		Dis-charged.		Trans-ferred.		Re-main-ing Dec. 31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Employees.....			3		2		1					
Nonemployees.....	2	6	95	265		6	92	243	3	17	2	5
Total.....	2	6	98	265	2	6	93	243	3	17	2	5

	White.	Colored.	Total.
Average number of days' treatment for employee for the year.....	0.33		0.33
Average number of employees constantly sick during the year.....	.003		.003
Number of days' relief furnished patients.....			3,027
Cost of subsistence per patient per day.....			\$0.256

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Employees.....	3	1		2	
Nonemployees.....	368	24	7	71	266
Totals.....	371	25	7	73	266

OPERATIONS.

(See report of all surgical operations.)

LABORATORY REPORT.

(See consolidated ward laboratory report.)

PALO SECO LEPER ASYLUM.

Class.	Re-main-ing Jan. 1.		Ad-mitted.		Died.		Dis-charged.		Trans-ferred.		Re-main-ing Dec. 31.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Employees.....	1	.....	1	1	.....	.....	2	1	.....	.....	.....	.....
Pay patients.....	1	22	.....	13	.....	1	1	.....	2	.....	1	31
Charity patients.....	.....	12	1	8	.....	1	.....	3	.....	.....	1	16
Total.....	2	34	2	22	.....	2	2	5	.....	2	2	47

	White.	Colored.	Total.
Average number of days' treatment per employee for the year.....	46.50	32.00	41.67
Average number of employees constantly sick during the year.....	.25	.09	.34
Number of days' relief furnished patients.....	.....	.....	16,008
Cost of subsistence per patient per day.....	.....	.....	\$0.302

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		W.	C.	W.	C.
Employees.....	3	1	.....	1	1
Pay patients.....	36	.....	.....	1	35
Charity patients.....	21	.....	.....	1	20
Total.....	60	1	.....	3	56

TABOGA SANITARIUM.

Class.	Remain-ing Jan. 1.	Admit-ted.	Died.	Dis-charged.	Trans-ferred.	Remain-ing Dec. 31.
Employees.....	51	3,002	.....	2,960	54	39
Families of employees....	8	723	.....	710	.....	21
Total.....	59	3,725	.....	3,670	54	60

Average number of days' treatment per employee for the year.....	7.14
Average number of employees constantly sick during the year.....	58.92
Number of days' relief furnished patients.....	27,468
Cost of subsistence per patient per day.....	\$0.597

NATIONALITY.

Class.	Number treated.	Americans.	Other nations.
Employees.....	3, 053	1, 775	1, 278
Families of employees.....	731	701	30
Total.....	3, 784	2, 476	1, 308

NOTE.—No colored patients treated at Taboga Sanitarium.

SANTO TOMAS HOSPITAL.

Class.	Re-main-ing Jan. 1.	Admit-ted.	Died.	Dis-charged.	Trans-ferred.	Re-main-ing Dec. 31.
Pay patients.....	22	1, 284	28	1, 249	-----	29
Charity cases.....	237	5, 496	450	5, 014	-----	269
Total.....	259	6, 780	478	6, 263	-----	298

Average number of days' treatment per patient.....	13. 91
Average number of patients constantly sick.....	256. 88
Number of days' relief furnished patients.....	93, 762
Cost of subsistence per patient per day.....	\$0. 236

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Colored.	White.	Colored.
Pay patients.....	1, 306	-----	-----	341	965
Charity cases.....	5, 733	-----	-----	991	4, 742
Total.....	7, 039	-----	-----	1, 332	5, 707

OPERATIONS.

	Number.	Died.
Major.....	511	29
Minor.....	1, 075	-----
Total.....	1, 586	29

DISPENSARY.

Class.	White.	Colored.	Total.
Natives.....	750	3, 116	3, 866
Foreigners.....	323	605	928
Total.....	1, 073	3, 721	4, 794

BOARD OF HEALTH LABORATORY.

Bacteriological examinations:

Municipal water supplies.....	151
Water from condensers.....	206
Water from reservoirs, creeks, and rivers.....	15
Rain water.....	2
Cultures from tonsil.....	2
Cultures from oriental sore.....	1
Fluid from wrist.....	2
Cultures from ear.....	1
Blood cultures.....	374
Throat cultures (diphtheria suspects).....	2, 974
Cultures from autopsies.....	183
Cultures from eye.....	26
Stools.....	789
Urine.....	313
Sputum.....	28
Pus.....	24
Eye lesion.....	1
Hydrocele fluid.....	1
Kneejoint fluid.....	16
Gall bladder fluid.....	2
Spinal fluid.....	27
Discharge from urethra.....	1
Various smears and specimens.....	28
Pleural fluid.....	5
Cultures from spleen.....	1
Blood.....	2
Treponema palladium.....	4
Fluid from femoral and inguinal glands.....	2
Auditory canal.....	1
Skin eruption.....	1
Fluid from chest.....	2
Ankle.....	1
Pericardial effusions.....	1
Tonsils and adenoids.....	4
Culture for meningitis.....	1
Abdominal fluid.....	2

Determinations:

Chlorine content in water.....	258
Larvacidal and algacidal value of oil larvacide.....	5
Coefficient of expansion of fuel oil.....	1

Determinations—Continued.

Germicidal value of copper sulphide fluid.....	1
Effect of sulphur dioxide upon grass.....	1
Examinations:	
Leper suspects.....	49
Yaws suspect.....	1
Bloodstains.....	1
Patient, clinical.....	1
Vomitus.....	5
Nine clinical thermometers.....	1
Chemical analysis:	
Silver nitrate solution.....	1
Rocks.....	1
Corrugated copper tubing.....	1
Bloodstains.....	2
Stomach contents.....	13
Bismuth subgallate.....	1
Urine.....	37
Water.....	3
Various liquids, fluids, etc.....	49
Various metals.....	4
Charcoal.....	1
Arsenic.....	1
Sugar cane.....	1
Renal calculus.....	3
Sea coal facing.....	1
Quinine solution.....	1
Toilet powder.....	1
Sediment from pump chamber.....	1
Cement.....	1
Agglutination reactions.....	252
Autopsies.....	779
Bodies embalmed.....	67
Hydrophobia, preventative treatment.....	3
Medicolegal post mortems.....	11
Sections of tissue prepared:	
Frozen.....	164
Paraffin.....	6, 222
Surgical pathological tissue and neoplasms reported.....	293
Vaccine inoculations, antityphoid.....	42
Vaccine treatment, autogenous.....	112
Water:	
Microscopical examination of.....	67
Sanitary analyses of.....	145
Wasserman reactions.....	1, 698
Widal reactions.....	167
Stools, microscopical examination of.....	299
Vaccination, smallpox.....	2
Urine, microscopical examination of.....	1
Blood, microscopical examination of.....	1
Investigation of cattle sickness at Empire.....	1
Stomach contents, microscopical examination of.....	1
Injections of antipost serum.....	17
Vaccines, mixed.....	6

ISSUES OF QUININE.

Months.	Kilograms.	Pounds avoirdupois.
January.....	198.00	436.51
February.....	42.80	94.36
March.....	44.50	98.10
April.....	107.50	237.00
May.....	41.25	90.94
June.....	245.50	541.23
July.....	84.09	185.19
August.....	85.504	188.50
September.....	60.50	133.38
October.....	96.00	211.64
November.....	55.70	122.80
December.....	132.90	292.99
Total.....	1,194.154	2,632.64
Average per month.....	99.51	219.39

SANITATION—CITY OF PANAMA.

Anopheles brigade:

Linear feet of ditches cleaned	1,819,737
Linear feet of ditches dug.....	25,069
Square feet of weeds and grass cut and removed....	4,703,096
Cesspools cleaned.....	110
Cesspools filled.....	58
Wells filled.....	9
Cubic yards of earth used in filling cesspools, wells, and holes.....	1,562
Square feet of brush cut and burned.....	1,140,000
Houses from which roof gutters were removed by owners	13
Houses on which gutters were repaired by owners.....	20
Loads of grass removed and burned.....	665

Disinfection brigade:

Houses disinfected and fumigated for—

Beriberi.....	6
Diphtheria.....	71
Malarial fever.....	3
Pernicious fever.....	1
Tuberculosis.....	29
Chickenpox.....	1
Leprosy.....	1
Measles.....	4
Typhoid fever.....	7
Septicemia.....	1
Erysipelas.....	1

Wards, Ancón Hospital, disinfected and fumigated for
plague..... 1

Number of cubic feet disinfected and fumigated.... 2,933,800

Number of rooms fumigated and disinfected..... 918

Material used:	
Crude oil.....	gallons.. 4, 200
Larvacide.....	gallons.. 8, 522
Destruction of rats:	
Number of rats caught and killed.....	14, 956
Average number of rat traps in use.....	361
Poisons placed.....	2, 480
Inspections of houses and yards:	
Houses and yards inspected.....	1, 044
Persons notified to keep premises in good condition....	365
Warning notices complied with.....	356
Number of letters to alcalde requesting enforcement of sanitary rules and regulations.....	81
Number of shacks, stables, and old buildings condemned and demolished.....	80
Number of yards cleaned.....	2, 254
Loads of refuse removed from the city.....	5, 625
New buildings:	
Number of plans submitted to health officer and approved.....	210

SANITATION—COLON, CRISTOBAL, MOUNT HOPE, TORO POINT.

Medical inspection:	
Number of cases reported by medical inspectors.....	35
Number of cases inspected.....	35
Number of cases sent to hospital.....	35
Number of sick children visited.....	1, 352
Total number of visits.....	4, 131
Number of sick babies sent to hospitals.....	21
Water and sewers:	
Number of connections made during the year.....	155
Total number of connections made to date.....	767
Number of outstanding permits.....	494
Number of houses in which extensions were made.....	57
Houses:	
Plans approved.....	171
Permits to repair issued.....	321
Permits to occupy issued.....	110
Temporary permits to occupy issued.....	16
Number of houses in which defective plumbing fix- tures were found and reported to superintendent of public works.....	1, 052
Sanitation of Colon:	
Average number of cans of garbage removed daily.....	2, 059
Number of—	
Loads of yard garbage removed.....	4, 882
Acres of vegetation removed.....	143
Acres of streets cleaned.....	3, 958
Private properties cleaned.....	1, 520
Square yards of pools oiled.....	271, 026
Mosquito-breeding places found.....	3, 133

Sanitation of Colon—Continued.

Number of—Continued.

Water receptacles treated.....	349, 405
Linear feet of ditches constructed.....	5, 620
Linear feet of ditches maintained.....	73, 639
Nuisances abated.....	3, 621
Buildings inspected.....	38, 103
Square yards of alleys cleaned.....	1, 462, 022
Crab holes worked.....	56, 300
Loads of refuse hauled from burned section.....	219

Notice to abate nuisances served..... 4, 608

Colon and Cristobal garbage disposed of, at dump, Colon.

Sanitation of Cristobal:

Number of—

Square yards of pools oiled.....	54, 748
Water receptacles treated.....	55, 050
Mosquito-breeding places found.....	512
Crab holes worked.....	900
Linear feet of ditches maintained.....	2, 500

Sanitation of Mount Hope:

Number of—

Square yards of pools oiled.....	433, 698
Water receptacles treated.....	212, 580
Linear feet of ditches maintained.....	223, 111
Crab holes worked.....	14, 815
Mosquito-breeding places found.....	2, 041
Linear feet of ditches constructed.....	6, 969

Sanitation of Toro Point:

Number of—

Square yards of pools oiled.....	573, 420
Water receptacles treated.....	58, 280
Mosquito-breeding places found.....	921
Linear feet of ditches constructed.....	44, 669
Linear feet of ditches maintained.....	133, 966
Square yards of vegetation removed.....	35, 000
Crab holes worked.....	42, 649
Doses quinine tonic distributed.....	76, 706
Cubic yards of ditches constructed.....	1, 836
Adult mosquitoes killed.....	9, 657
Crabs killed.....	905

SANITATION—CANAL ZONE.

Months.	Number of gallons larvacide used.	Number of gallons crude oil used
January.....	9,743	44,043
February.....	8,107	35,784
March.....	9,035	53,386
April.....	8,635	41,225
May.....	11,198	43,996
June.....	12,478	42,960
July.....	10,687	56,116
August.....	11,002	67,418
September.....	10,978	67,769
October.....	10,370	77,352
November.....	9,970	70,331
December.....	10,952	49,399
Total.....	123,155	649,779

Houses fumigated and disinfected for transmissible diseases.....	239
Inspections for adult mosquitoes.....	16,867
Rats destroyed.....	9,658

NOTE.—Grass cutting, garbage removal, and screen repairing are done by quartermaster's department upon request from this department.

Ditch construction and maintenance is done by the engineering department upon request from this department.

QUARANTINE SERVICE.

PORTS OF PANAMA-ANCON AND COLON-CRISTOBAL.

Number of vessels inspected and passed.....	1,283
Number of vessels detained in quarantine.....	23
Number of vessels fumigated on arrival.....	96
Number of vessels fumigated prior to departure.....	29
Number of pieces of baggage disinfected.....	477
Number of crew inspected.....	103,520
Number of passengers inspected.....	62,296
Total number of persons inspected.....	165,816
Number of persons vaccinated at ports of arrival because of compulsory vaccination law.....	12,545
Number of persons vaccinated at ports of departure or en route because of compulsory vaccination law.....	14,314
Total number of persons vaccinated.....	26,859
Number of persons held in quarantine at the detention stations to complete period of incubation of yellow fever or plague.....	5,713

Number of persons held in quarantine at the detention stations to determine if cholera bacillus carriers.....	467
Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague..	6, 224
Total number of persons held in quarantine.....	12, 404
Number of persons landed from foreign ports:	
Cabin.....	19, 606
Steerage.....	21, 520
	<hr/> 41, 126
Number of persons embarked for foreign ports:	
Cabin.....	19, 544
Steerage.....	17, 272
	<hr/> 36, 816
Apparent increase for the year from foreign ports:	
Cabin.....	62
Steerage.....	4, 248
	<hr/> 4, 310
Number of persons arriving from coast towns on small craft..	33, 391
Number of persons embarked for coast towns on small craft..	27, 574
Apparent increase for the year from coast towns.....	5, 817
Total number of persons landed.....	74, 517
Total number of persons embarked.....	64, 390
Excess over number embarked.....	10, 127
Less number for Pacific ports.....	2, 822
Total apparent increase for the year.....	7, 305
Number of immigrants recommended for rejection.....	181
Number of certificates issued to outgoing passengers.....	720
Number of persons refused certificates because of trachoma..	57
Number of bills of health viséed.....	696
Number of pieces of baggage handled and stored.....	7, 651

BOCAS DEL TORO.

Number of vessels inspected and passed.....	328
Number of crew inspected and passed.....	11, 934
Number of passengers inspected and passed.....	6, 244
Number of passengers, in transit, inspected and passed....	2, 039
Number of persons held to complete period of incubation of yellow fever.....	462
Vessel fumigated at request of owners.....	1

PERSONNEL REPORT.

(Average number of employees at work during the year.)

Chief sanitary office.....	43
Property division.....	9
Quarantine service.....	38
Health office, Panama.....	60
Health office, Colon.....	119
Ancon Hospital.....	532
Colon Hospital.....	195
Santo Tomas Hospital.....	6
Taboga Sanitarium.....	26
Palo Seco Leper Asylum.....	14
Zone sanitation.....	259

Dispensaries:

Ancon.....	3
Balboa.....	3
Bas Obispo.....	7
Bohio.....	1
Corozal.....	3
Cristobal.....	8
Culebra.....	13
Empire.....	11
Gatun.....	18
Gorgona.....	8
Las Cascadas.....	8
Miraflores.....	6
Nombre de Dios.....	2
Paraiso.....	5
Pedro Miguel.....	5
Porto Bello.....	4
San Pablo.....	3
Tabernilla.....	3
Toro Point.....	4
Total.....	1,416

HOSPITAL CASES OF MALARIA AMONG EMPLOYEES.

Months.	Discharged.		Died.		Total cases.	Annual average per 1,000 of deaths.	Annual average per 1,000 of cases.	Number of employees.
	W.	C.	W.	C.				
January.....	180	157	1	1	339	0.51	86	47,348
February.....	217	166	1	---	384	.24	93	49,785
March.....	239	167	---	.1	407	.25	102	47,935
April.....	190	138	1	---	329	.25	81	48,634
May.....	461	463	1	3	928	.99	230	48,496
June.....	756	981	4	4	1,745	1.98	432	48,519
July.....	747	1,226	4	4	1,981	2.01	497	47,801
August.....	396	506	3	2	907	1.21	219	49,710
September.....	322	339	3	---	664	.76	168	47,400
October.....	253	249	1	---	503	.24	121	49,812
November.....	199	210	4	1	414	1.19	99	50,420
December.....	191	193	1	1	386	.47	91	50,655
Total.....	4,151	4,795	24	17	8,987	.84	184	48,876





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